

Claims

1. An axial swage alignment tool for swaging together a tube and a fitting having a swaging collar, the axial swage alignment tool comprising:
  - a housing adapted to engage the fitting;
  - a ram member adapted to engage the swaging collar; and
  - a bridge member for maintaining the orientation of the tube relative to the fitting during swaging, the bridge member being configured for adhesion to the exterior surfaces of the tube and the fitting.
2. The axial swage alignment tool according to claim 1, wherein the bridge member is U-shaped, having curved contact surfaces for mating with the exterior surfaces of the tube and the fitting.
3. The axial swage alignment tool according to claim 2, wherein the contact surfaces are adapted to be temporarily adhered to the exterior surfaces of the tube and the fitting.
4. The axial swage alignment tool according to claim 1 further comprising:
  - a means for actuating the ram member.
5. The axial swage alignment tool according to claim 4, wherein the means for actuating the ram member is a hydraulic power source.
6. The axial swage alignment tool according to claim 4, wherein the means for actuating the ram member is an electro-mechanical power source.

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7. A bridge member for use in swaging together a metal tube and a fitting having a swaging flange, the bridge member comprising:

a first end portion having a curved contact surface for matingly contacting the metal tube;

a second end portion having a first curved contact surface for matingly contacting a longitudinal surface of the fitting and a second curved contact surface for matingly contacting a radial flange surface of the fitting, whereby the orientation of the metal tube relative to the fitting may be maintained; and

a cross piece for connecting the first end portion to the second end portion.

8. The bridge member according to claim 7, wherein the second end portion is configured to mate with the swaging flange.

9. A method of swaging together a metal tube and a fitting having a swaging collar comprising the steps of:

inserting the metal tube into the fitting such that the metal tube is selectively aligned both axially and rotationally with the fitting;

providing a bridge member having a first end and a second end, the first end having a contact surface configured to mate with the exterior surface of the metal tube, the second end having a contact surface configured to mate with the exterior surface of the fitting;

adhering the contact surface of the first end to the metal tube;

adhering the contact surface of the second end to the fitting;

forcing the swaging collar over the fitting;

removing the bridge member from the metal tube and the fitting.

10. The method according to claim 9, wherein the steps of adhering the contact surfaces of the first and second ends to the metal tube and fitting are achieved by using a cyanoacrylate adhesive.